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September 30, 2008

EX-USS KITTIWAKE ARTIFICIAL REEFING PLAN

Dominion Marine Group, Ltd., Will comply with the Reefing Technical Compliance Plan and the Application to MARAD for the donation of the ship for artificial reefing purposes to a foreign government.

Dominion Marine Group, Ltd.

Timothy S. Mullane, President

KITTIWAKE REEF PREPARATION PLAN (TECHNICAL COMPLIANCE PLAN "TPC")

Created May 19, 2005
Final revision October 2008

Prepared for:

CAYMAN ISLANDS TOURISM ASSOCIATION

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List of Acronyms

ACM	Asbestos Containing Materials
AL	Action level
BMP	Best Management Practice
CFR	Code of Federal Regulations
CITA	Cayman Islands Tourism Association
CPR	Cardiopulmonary Resuscitation
DEQ	Virginia Department of Environmental Quality
DMG	Dominion Marine Group, Ltd.
DOT	U.S. Department of Transportation
EC&C	EC&C Incorporated
EHS	Environmental Health and Safety
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
HASP	Health and Safety Plan
Hazmat	Hazardous Materials
HAZWOPER	Hazardous Waste Operations
HEPA	High-Efficiency Particulate Air
HM/W	Hazardous Materials/Waste
IMO	International Maritime Organization
JRRF	James River Reserve Fleet
MARAD	U.S. Maritime Administration
MOA	Memorandum of Agreement
MSDS	Material Safety Data Sheet
MSO	U.S. Coast Guard Marine Safety Office
$\mu g/m^3$	micrograms per cubic meter
NAAQS	National Ambient Air Quality Standards
NIOSH	National Institute of Occupational Safety and Health
NOAA	U.S. National Oceanographic and Atmospheric Administration
OPA	Oil Pollution Act
OSHA	Occupational Safety and Health Act
OSHA	U.S. Occupational Safety and Health Administration
PCBs	Polychlorinated Biphenols
PEL	Permissible Exposure Limit
ppm	parts per million
PRAM	Prospective Risk Assessment Model
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act of 1986
SOP	Standard Operating Procedure
SQG	Small Quantity Generator
SWPP	Storm Water Pollution Prevention
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage, Disposal
URS	URS Corporation
USCG	U. S. Coast Guard

USGS	U.S. Geological Survey
USCGC	U.S. Coast Guard Cutter
VA	Commonwealth of Virginia
VAC	Virginia Administrative Code
VPDES	Virginia Pollution Discharge Elimination System (Permit)
XRF	X-Ray Fluorescence

Section 1 – Introduction and Project Overview

This vessel remediation plan covers all aspects of preparing the *Kittiwake* for reefing in conformance to the requirements of the Cayman Islands Department of Environment, and accordance with all applicable local, Commonwealth of Virginia and United States federal regulations. These standards are incorporated in this vessel remediation plan and are based primarily on the U.S. Environmental Protection Agency's (EPA's) and the U.S. Maritime Administration's (MARAD's) Best Management Practices (BMP) for Preparing Vessels Intended to Create Artificial Reefs dated May 2006. The BMP guidance is incorporated by reference in this reefing plan and can be found at http://www.epa.gov/owow/oceans/habitat/artificialreefs/guidance.html for further reference.

Dominion Marine Group, Ltd. (DMG) shall prepare for towing of the *Kittiwake* from the James River Reserve Fleet (JRRF) to the DMG Shipyard in Norfolk, Virginia. DMG will then execute the vessel remediation plan at the shipyard. In summary, this plan includes:

- **Oil and Fuel** - Removal of all fuels, oils, lubrications and greases so that no visible sheen remains on tank surfaces, piping, or on any vessel component or structure, or on water when the vessel is flooded for sinking.
- **Asbestos** – Removal of all asbestos that is loose or may become loose; removal or sealing of all accessible, friable asbestos.
- **Polychlorinated biphenyls (PCBs) –** Removal of all liquid and solid PCBs
- **Paint –** Removal of all harmful exterior hull anti fouling systems that are determined to be active; remove all exfoliated paint, sweep clean all deck surfaces. Removal of all paint that contains ≥50ppm PCBs
- **Other Materials of Environmental Concern –** Removal of all universal wastes such as batteries, mercury containing equipment and ozone depleting substances.
- **Solids/Debris/Floatables –** Removal of all loose debris including wood and all other materials or equipment not permanent attached to the vessel that could be transported into the water during sinking.

DMG will remove all wiring from the *Kittiwake* that could potentially contain PCBs. DMG will also remove of all PCB containing liquids, gaskets, fluorescent light fixtures, ductwork with flange gaskets, and all insulation. This will remove PCB containing materials and equipment from the ship. This cleanup level is consistent with the International Basel Convention as required for export to the Cayman Islands. This plan is more rigorous than the EPA's and MARAD's BMP, which calls for total removal of all liquid PCBs, and removal of all solid materials containing PCBs greater than or equal to (≥) 50 parts per million (ppm) total PCBs. Since the PCB remediation plan for the *Kittiwake* will remove all PCBs (except for PCB's found in paint that is <50ppm), an EPA RCRA required hazardous waste export permit will not be required.

DMG has completed a sampling protocol for PCBs on all paint and tested 125 paint samples, with lab report results included in the Application to MARAD from the CITA. The sampling plan

includes analysis of total PCBs using EPA SW-846 Method 8082, including sample preparation and extraction by EPA Method 3541, the Soxhlet extraction method.

Further, once the *Kittiwake* has been remediated, CITA has contracted with Environmental Profiles Inc. to do a further ship-wide inspection for all HAZMAT including re-sampling of all paint on the *Kittiwake*, as a third party independent inspector.

Coastal Environmental Services of Virginia Inc. will complete removal and cleaning of the fuel and oil tanks, as well as cleaning other petroleum contaminated areas.

C&M Industries will provide transportation and treatment of ballast water and wastewater accumulations.

DMG has selected several waste transporters and disposal facilities for this project. Hazardous materials/waste control is a vital aspect of the larger concern of protection of employees and the environment. DMG has selected and shall subcontract with Envirocon Inc. to perform environmental remediation.

DMG does not store any hazardous materials or hazardous waste product on its premises with the single exception of U.S. Department of Transportation (DOT) approved shipping containers. These containers are necessary to contain hazardous materials/waste while the remediation work being performed by DMG subcontractors is underway. These containers will typically be shipped within 30 days using an approved and licensed hazardous material/waste transporter. All solid and hazardous wastes generated from remediation of the *Kittiwake* will be disposed of at approved, licensed and permitted solid and hazardous materials/waste disposal facilities. DMG shall provide copies of all hazardous wastes manifests to the Cayman Islands *Kittiwake* Team upon completion of the project.

Once portions of the *Kittiwake* superstructure has been cleaned and cleared of contaminants, hazardous materials/waste, and other materials (to include carpet, lagging, wood, plastics, and non-ferrous attachments as required by the Cayman Islands), DMG will begin to cut the superstructure for diver access and diver safety. DMG will not make the final diver-safety cuts to the superstructure, which will occur once the vessel arrives at Georgetown Harbour, Grand Cayman for final dive cutouts preparation. Steel portions of the ship removed will be placed into a scrap metal container for transportation to SIMS Metals Chesapeake Recycling facility for processing.

CITA and West Indian Marine have developed locations for diver safety cutouts and air venting holes as part of the reefing plan, which will be cut and removed in Virginia except from those that would compromise the ship for it's seaworthiness for the tow to Grand Cayman. Final diver safety cutouts on external decks and just above the waterline will be completed in Georgetown Harbour just prior to sinking. West Indian Marine is the contractor that will sink the *Kittiwake* in the location already approved by the Cayman Islands.

Section 2 – Facility Description

2.1 Facilities Location

The DMG Shipyard is located at 425 Campostella Road in Norfolk, Virginia on the eastern branch of Elizabeth River. The shipyard location is illustrated in ***Figure 1*** (see next page). Our slips have direct access to deep-water commercial channels leading through Norfolk, Virginia, to the Chesapeake Bay. Because of proximity of our location to the James River Reserve Fleet, the tow to DMG is entirely inland navigable water and approximately a 6-hour tow. A chart showing the tow route from the JRRF to the DMG Facility is provided as ***Figure 2***.

The yard and waterfront are in an unnamed cove on the south side of the Elizabeth River, southwest of the Campostella Bridge. The facility consists of a fenced in yard facility just over ½ acre of land and over two acres of deeded water, including the south and western cove upland. Water depths at the DMG Shipyard run from 1 foot to 18 feet mean low water. An aerial view of the shipyard is provided in ***Figure 3***.

Figure 1 DMG facility location map

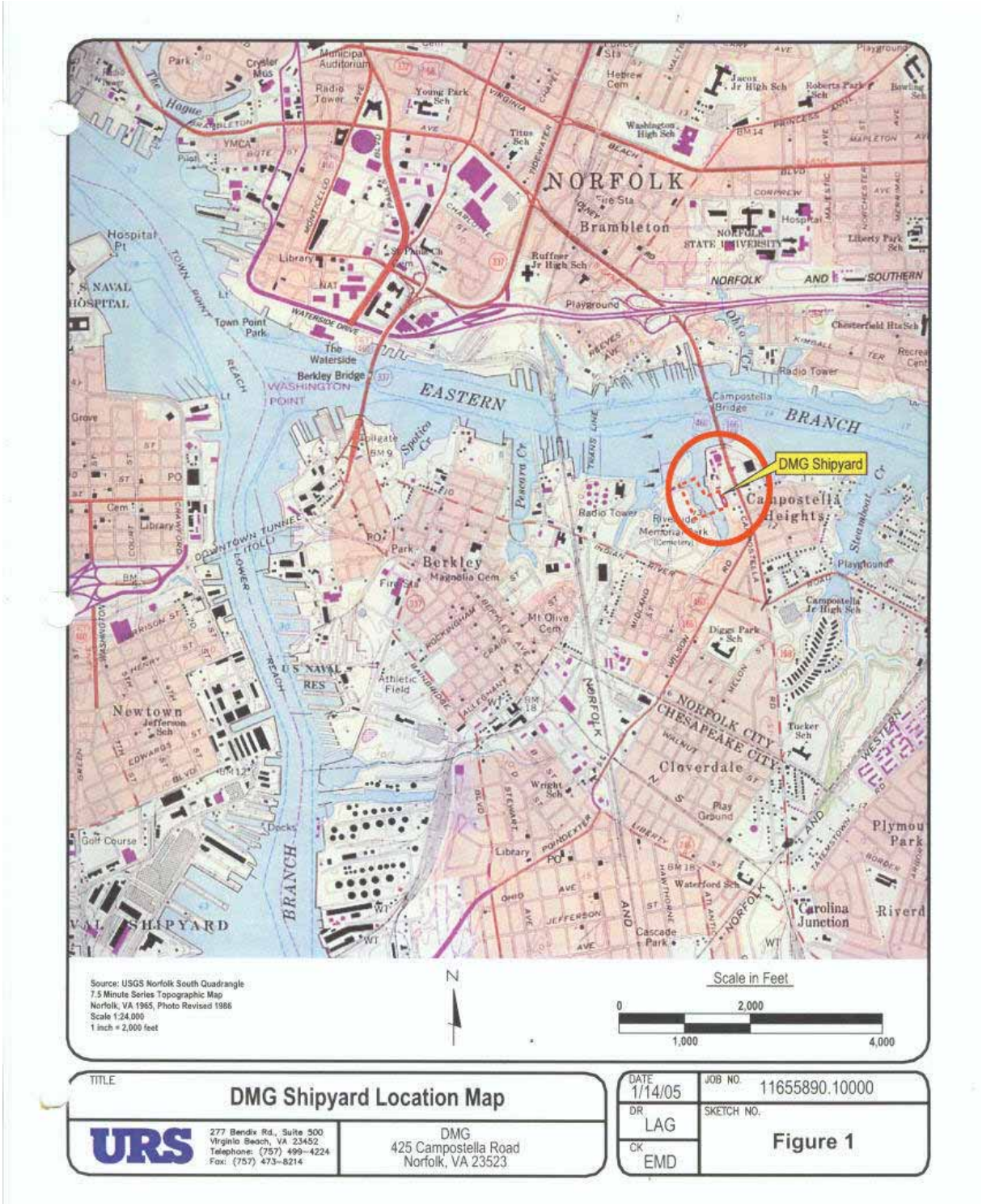


Figure 2 Chart Showing Tow Route from JRRF to the DMG Facility

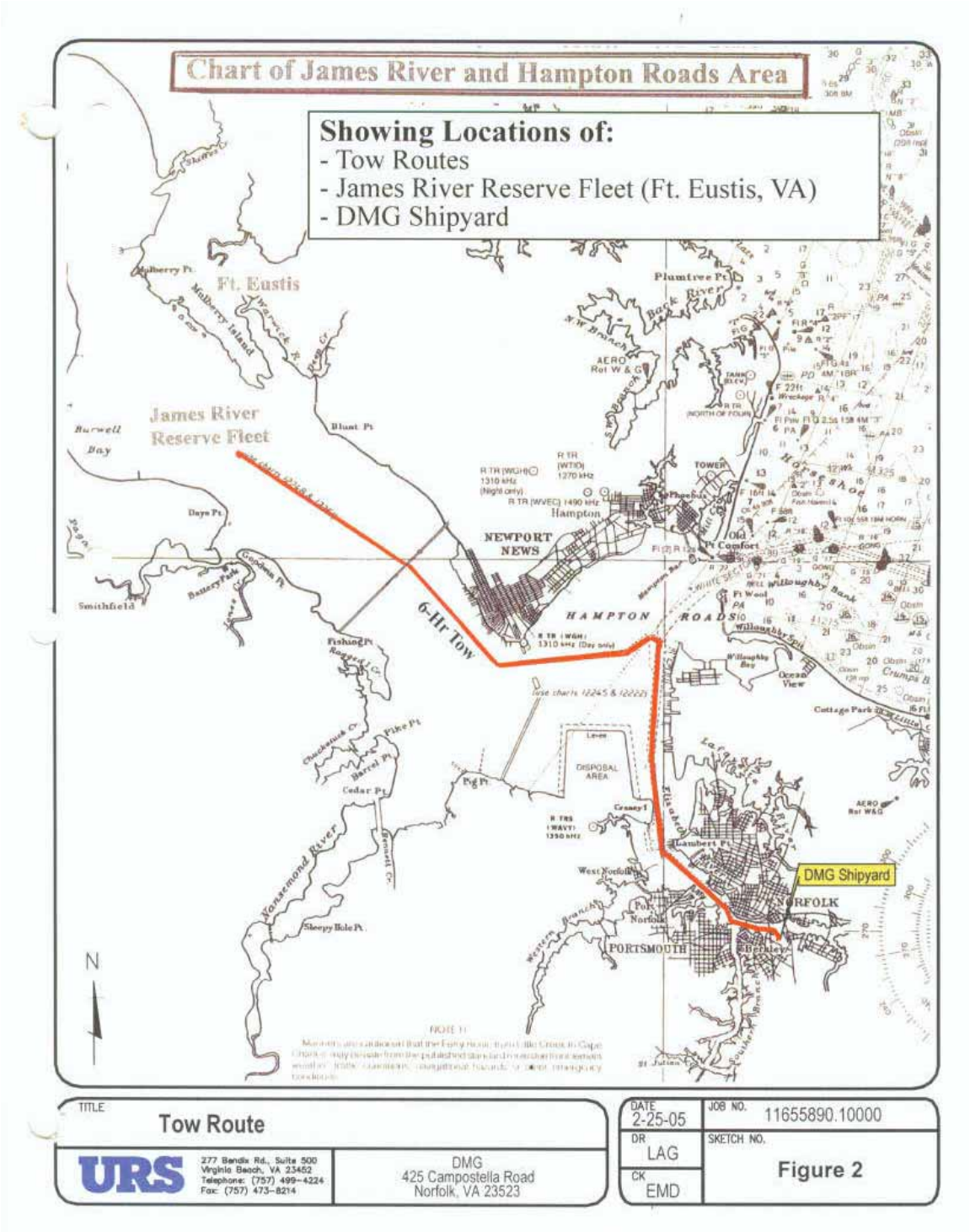
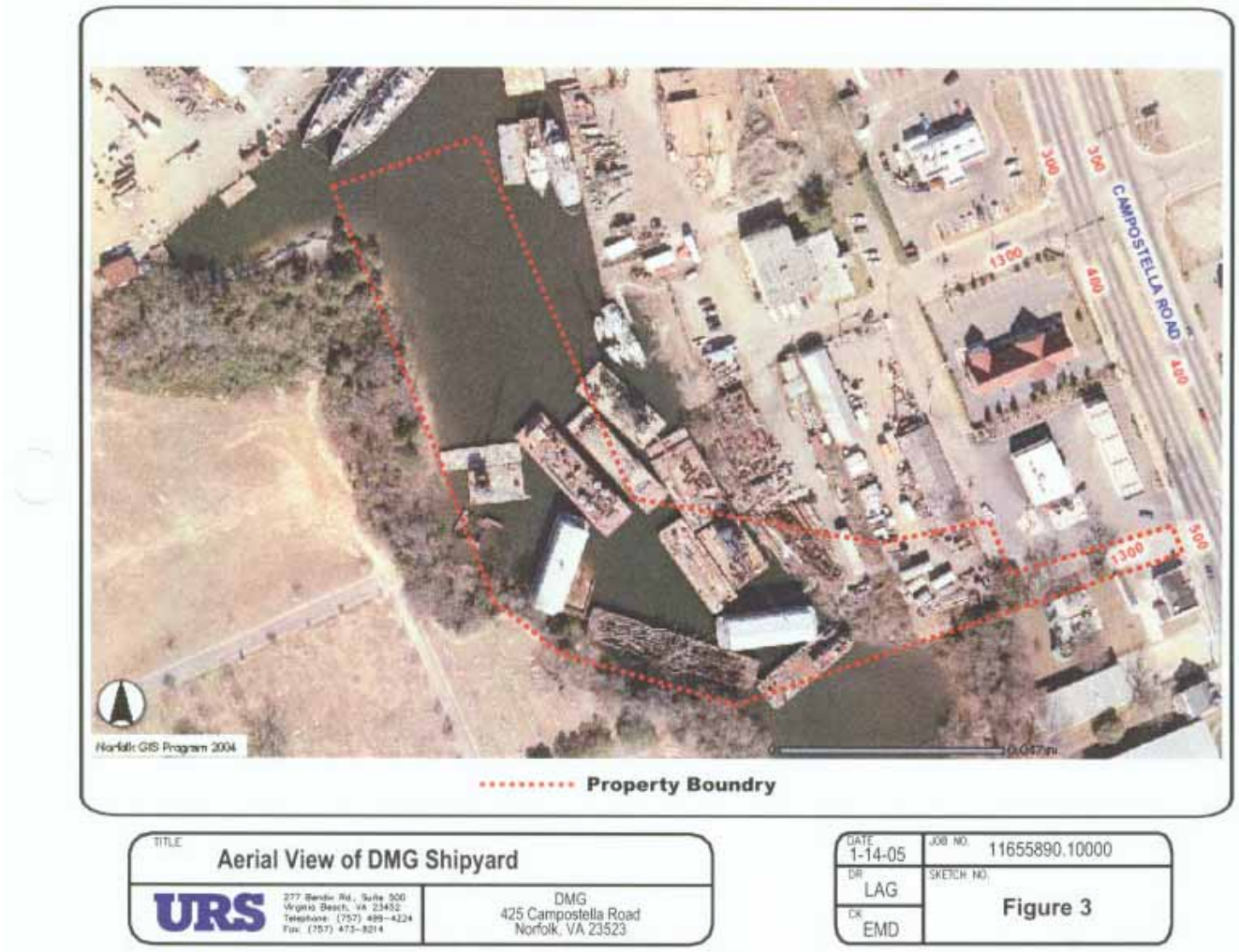


Figure 3 Aerial view of DMG Shipyard



Section 3 - Description of Current Work Force

3.1 Marine Experience

Dominion Marine Group, Ltd. was incorporated in June 2003. We are a provider of marine services including marine salvage, wreck removal, barge and ship repair, tank cleaning and gas free services, vessel conversion and vessel reefing. To date DMG has environmentally prepared and reefed 17 vessels from 105-foot ship-docking tugboats to a 180-foot buoy tender. A summary of experience applicable to this project includes:

- Make ready for tow of the Mormac Dawn - JRRF to ESCO Brownsville;
- Remediation and tank cleaning/conversion of NOAA Ship Ferrel (subcontractor to Allstar Metals);
- Prepared, towed and sunk shipdocking tugboats Yatanocos and A.J. McAllister for State of New Jersey (for reef);
- Prepared, towed and sunk Kings Point, Georgia Moran, Lady Dee for State of New Jersey;
- Prepared, towed and sunk Vincent Turecamo for State of Georgia;
- Prepared, towed and sunk Barbara McAllister, Reid McAllister for State of Georgia;
- Prepared, towed and sunk tug Wilmington for State of South Carolina;
- Removed main and auxiliary machinery from USCGC Spar for Vane Line Bunkering;
- Converted tank barges BT-120 and BT-195 into deck barges for Langenfelder Marine;
- Prepared, towed and sunk USCGC Spar for State of North Carolina (artificial reef);

3.2 DMG Personnel and Certifications

DMG Program Manager, Superintendents and Foremen are all personnel experienced in ship repair and dismantling with on-site and off-site formal work and safety training to OSHA Certification standards. The management team members are all Competent Person trained, have current 24-hour and 40-hour HAZWOPER training and certifications covering Hazardous Materials, Confined Space, On-Board Fire Prevention, and CPR/First Aid Training. Resumes of

key DMG personnel are detailed in ***Appendix A***. Copies of OSHA and other certifications necessary for safe operation of the Shipyard are assembled in ***Appendix B***.

3.3 Subcontractor Qualifications

DMG subcontractors are a vital segment of our work force. For that reason, DMG is extremely careful to select subcontractors who have displayed outstanding working relations with DMG on past projects. DMG subcontractors have, as a general rule, performed contract work for DMG on prior projects. As part of qualifying for such subcontract work, they provide DMG with copies of all training and certifications their employees maintain to conduct their assigned tasks. DMG subcontractors all have experienced personnel on their staffs.

All DMG subcontractors perform specific job assignments regarding remediation of hazardous waste and recyclable materials or other aspects of ship reefing or ship breaking. Prior to beginning a specific project for DMG, subcontractors are required to bring all their company and employee certifications current and submit file copies of all necessary paperwork with the DMG Program Manager.

DMG subcontractors must have written Environmental Compliance Plans and Employee Safety and Health Plans in force. These Plans must meet the same standards that DMG Plans meet. DMG subcontractors have established Corrective Action Procedures in place. Such corrective action on DMG projects must be coordinated with the DMG Program Manager.

DMG subcontractors are specifically selected for the training and experience of their personnel. The subcontractor management is required to maintain all necessary training and certification of their personnel and to keep DMG informed of this status. Subcontractors are also required to maintain proper licenses, permits and insurance. EPA Identification and other licenses and permits for our primary work partners are provided below.

3.3.1 C & M Industries, Inc.

Located in Chesapeake, Virginia, C&M processes and disposes of various liquid and solid waste materials. Their EPA Identification Number, Hazardous Waste Transporter Permit, Industrial Waste Water Discharge Permit are listed below:

EPA ID	VAR 000004721
VA Hazardous Waste Transporter Permit	VAR 0000047215
Hampton Roads Sanitation District Industrial Wastewater Discharge Permit	No. 0412

C & M maintains proper liability insurance through Towne Insurance Agency, Inc., Chesapeake, VA. C & M customers include Department of Defense, Chesapeake Terminal, Inc, U.S. Army

Corps of Engineers, Langley Air Force Base, U.S. Coast Guard, City of Chesapeake, Seimens/Westinghouse, URS Corp, and B & T Petroleum Recovery.

3.3.2 Envirocon Inc.

Envirocon, Inc. is a woman-owned corporation headquartered in Virginia Beach, Virginia and specializes in hazardous material and waste remediation. They have a Virginia Class A Contractor's License and hold current Virginia Asbestos and Lead Contractor licenses:

VA Class A Contractor's License No.	2705 101367A
VA Asbestos Contractor No.	3306 000916
VA Lead Contractor No.	3358 000393

All employees of Envirocon have current VA asbestos and lead licenses. Envirocon uses Asbestos Waste Services as their licensed transporter of hazardous materials to BFI, King & Queens County, Little Plymouth, VA, for asbestos disposal and Michigan Disposal Waste Treatment Plant in Wayne County, MI, for lead and PCB disposal.

A summary of completed remediation projects for Envirocon supervisory personnel includes the NOAA Ship Ferrel, APL-57, *EX Spiegel Grove* and *Nuevo San Juan,* Great Lakes ore freighter *Elm Glen,* ocean-going tugs *Swan Point, Sea Star, A.J McAllister* and *James Michael* for Bay Bridge Enterprises, LLC, Military Family Housing Fort Eustis and Fort Story, and Veterans Administration Medical Center Hampton, Virginia.

3.3.3 Coastal Environmental Services of Virginia Inc.

Coastal Environmental, headquartered in Suffolk, Virginia, specializes in vessel tank cleaning, gas freeing, waste petroleum and water removal and emergency response. Coastal Environmental personnel are experienced and trained in Competent Person, 40-hour OSHA/HAZWOPER Certifications, and Permit-Required Confined Space Entry. Coastal Environmental Services client list includes Bay Bridge Enterprises, Associate Naval Architect, Wanchese Fish Company and Crofton Diving.

3.3.4 URS Corporation

The URS Hampton Roads office locally has over 150 engineers, scientists, technicians and support staff. All URS personnel supporting DMG for the *Kittiwake* project are 40-hour OSHA HAZWOPER trained with current refresher training. Many of the support staff have significant USCG and US Navy experience and have completed extensive shipboard fire, hazard and safety training. All URS on-site compliance supervisors have completed the OSHA HAZWOPER

Supervisor training coarse and have current first aid and adult CPR certifications. All URS personnel are in the URS HAZWOPER occupational medical monitoring program.

URS Corporation has provided environmental, health and safety support services to Bay Bridge Enterprises and DMG. URS will provide planning, hazardous materials abatement monitoring, regulatory compliance and coordination, management and risk assessment support, and independent EH&S compliance oversight. For the 5th year in a row, URS is ranked the No.1 Hazardous Waste and No.1 Site Assessment/ Remediation Firm in the Nation by *Engineering News-Record.* They have completed development of hazardous materials removal plans and provided oversight of removal actions for several US Navy ships in Suisan Blay, CA. URS has also provided manpower for Level B confined space ship hold entry and shipyard USCG, OSHA and USEPA compliance audits in the Hampton Roads, VA area.

URS is working closely with the US Navy in research and development of the prospective fish assessment model (PRAM) tool used to evaluate the risks from PCB contaminants on reefed ships. The model is currently being applied to the *Ex-Oriskany* in anticipation for reefing in Florida waters as part of the US Navy's reefing pilot program. URS has also assisted a ship scrapping facility on the West Coast acquire the necessary permits and completed other site work in support of a successful fishing boat scrapping program.

3.3.5 Marine Inspections of Tidewater

DMG will utilize Mr. John Walker of Marine Inspections of Tidewater as the project certified Marine Chemist. Mr. Walker holds Marine Chemist Certification No.628. Considered an integral working partner, Mr. Walker has extensive experience working with DMG and assisted with the USCGC Spar, Kings Point, NOAA Ferrel, Georgia Moran, Bay King, Megan Sue, Lady Dee, BT-195 and *Spiegel Grove* reefing preparation projects. Mr. Walker was instrumental in efficiently certifying gas free tanks and enclosed spaces and the hot work in a timely manner to achieve the highly aggressive work schedule. He was also instrumental in consulting with DMG on it's Health and Safety Program, providing Shipyard Competent Person Course training as well as on-the-job refreshers, and consulting with DMG on USCG and OSHA regulations relating to ship reefing and ship breaking operations.

Contact information for DMG and DMG's work partners along with their primary assignments are provided in the following table.

Table 3-1. Major Contractors

Reefing Preparation Timothy Mullane, Vice President Shipyard Program Project Manager Dominion Marine Group, Ltd. 801 Broad Street, Suite 202 Portsmouth, VA 23707 Tel: 757-544-5635 Fax: 757.397.1384 Email: timmullane@yahoo.com	**Hazmat Remediation** Pete Marquez Envirocon Inc. 3419 Virginia Beach Blvd # C-13 Virginia Beach, VA *23452* Tel: 757.502.8156 Fax: 757.502-8158 Email: envirocon.inc@earthlink.net
Tank Cleaning Timothy Mullane , Vice President Shipyard Program Project Manager Dominion Marine Group, Ltd. 801 Broad Street, Suite 202 Portsmouth, VA 23707 Tel: 757-544-5635	**Tank Cleaning** Jim Klinefelter, President Coastal Environmental Services of Virginia Inc. 5474 Nansemond Parkway Suffolk, VA 23434 Tel: 757.488.4244 Fax: 757.488.4622
Transportation and Disposal Richard Wilson Asbestos Waste Services 412 Oak Mears Crescent, Suite 203 Virginia Beach, VA 23462-4200 Tel: 757.497.6194	**Transportation and Disposal** BFI, King & Queens County (asbestos) Route 609 & 614 Little Plymouth, VA Tel:
Transportation and Disposal Michigan Disposal Waste Treatment Plant (lead & PCB) Van Buren Township, Wayne County, MI Tel:	**Transportation and Disposal** Anthony Mitchum, Senior Vice President C & M Industries, Inc. 121 Republic Road Chesapeake, VA 23324 Tel: 757.543.8775 Fax: 757.545.4386
Towing Capt. William Douglas, GM McAllister Towing of Virginia, Inc. 2600 Washington Norfolk, VA 23607 Tel: 757.627.3651	**Towing** Captain Dick Erdt American Marine Group, LLC 425 Campostella Road Norfolk, VA 23523 Tel: 757.544.5635
Environmental, Health & Safety Ed Dullaghan, P.G., Principal Scientist URS Corporation 277 Bendix Road, Suite 500 Virginia Beach, VA 23452 Tel: 757.499.4224 Fax: 757.473.8214 Email: ed_dullaghan@urscorp.com	**Marine Chemist** John Walker Marine Inspections of Tidewater, inc. 3081 Stratford Court Chesapeake, VA 23321-5825 Tel 757 484 8760

Section 4 – Project Management

4.1 DMG Management and Organization

The core personnel of the DMG project team have long-term experience in the ship remediation and ship dismantling industry. The key personnel are as follows:

- Timothy Mullane – President and Program Manager, DMG
- Steve McGee – Shipyard Superintendent, DMG
- Russ Francis – Environmental, Safety & Health Director, DMG

These key supervisory people hold the necessary certifications earned by completion of formal, off-site training. Several subcontractors have been selected to support remediation of the *Kittiwake*. Subcontractors and tasks that they will be responsible for include:

- Envirocon, Inc. hazardous material/hazardous waste removal
- Coastal Environmental, petroleum recovery services and tank cleaning
- C&M, wastewater removal and treatment, and
- URS, environmental, health and safety support services.

Resumes and Certifications are provided in ***Appendix A and B***, respectively. DMG employees do not perform work involving hazardous materials/waste. DMG does not warehouse or store hazardous waste products on its premises. Any and all work involving hazardous waste is assigned to subcontractors with correctly trained, certified and experienced management, supervision and personnel and all necessary licenses, permits and insurance coverage. All remediated and removed hazardous materials/waste is transferred to OSHA/EPA approved containers and transported to EPA approved disposal sites by properly licensed DMG subcontractor(s).

4.2 Subcontractor Management

Subcontractors are considered an integral part of the DMG work force. Subcontractor supervisors are treated and expected to perform in the same manner as DMG Supervisors. The subcontractor Site Supervisors are required to direct their personnel in a prudent, safe manner in compliance with all applicable regulations and regulatory agency protocols and procedures and their own DMG approved EH&S plans. They are expected to be intimately familiar with the nature and extent of the work required of them and to assure that the work is conducted and completed in accordance with the subcontract and performance schedule agreed to prior to start of the task.

4.3 Management Control of Performance Schedule and Costs

Cost control is maintained at DMG via two overlapping management tools: 1) an overall forecast and associated budget of the ship scrapping project(s) and 2) daily/weekly production status

meetings. The overall forecast and budget is established by the Program Manager with specific input from the pertinent Superintendents and subcontractor Managers to define the production steps necessary to accomplish the specific task and timeline to handle the task. The Program Manager maintains a Gantt Critical Path/Time Line chart showing the sequencing of production steps necessary in the remediation project as originally planned and an overlay of actual current progress

Once docking and the initial vessel survey has been completed for the *Kittiwake*, management of the selected subcontractors meet with the DMG Program Manager for a project kick-off meeting to coordinate assigned work tasks and schedules. As work progresses, the Program Manager will hold daily and/or weekly production status meetings with the DMG Superintendents and subcontract Managers. The agenda of these meetings shall include:

- Presentation of current project schedule using the Gantt Critical Path chart,
- A report by the Superintendents and Managers of work accomplished during the week and whether work is on/ahead/behind budget by percentage of task completion,
- If behind schedule or over cost, define and delegate the corrective action to be taken, and
- The schedule of manpower and tasks planned for the next week.

Once the status meeting is completed, the Gantt Critical Path Chart will be updated and distributed to all managers, with copies provided to the CITA Project Team for further distribution.

4.4 Performance Schedule

MARAD is requiring EPA's review and final comment on this plan prior to transfer of the *Kittiwake* to the Cayman Islands Government.

Milestone	**Due Date**
Submittal of Reef Preparation Plan	September, 2008
Receipt of Comments by EPA	November 2008
Transfer of Title by MARAD/notice to proceed	December 2008
Prep and Tow ship to DMG	December 2008
Remediate *Kittiwake*	January – April 2008
Complete post remediation and tow Inspections by EPA, USCG	May 2008
Kittiwake Ready for Tow to Cayman Islands	June 2008

Section 5 – Ship Reef Preparation Methodology

The following details the methodology used by DMG to evaluate, analyze, remediate, and otherwise prepare the *Kittiwake* for reefing.

5.1 Preparation for Towing

Prior to the vessel being accepted by DMG for tow, the following actions will occur:

1. The vessel is to be assessed for suitability to tow. The vessel hull must be in sound enough condition to make the proposed tow. Any corrective actions and any special conditions required shall be completed to ensure a safe voyage.

2. DMG line-handling and riding crews are to be notified in advance of any items they may need to ensure a safe transit, i.e.: flashlights, floatation vests, heaving lines, first aid kit, drinking water, marine radios, etc.

3. Vessel is to have a preliminary hazards assessment to ensure the safety of the line-handling and riding crew.

4. DMG is to have a designated Superintendent onboard for the entire towing evolution. The Superintendent is responsible for the safety of the crew, coordinating between the River Pilot, line-handling crew, and DMG Shipyard Program Manager.

The following actions must be taken before actual towing can be initiated:

1. Vessel is to have a complete tank survey, to include quantity and types of products in the tanks. This survey is to be accomplished with a minimum of two people, at least one of which is to be a DMG Shipyard Competent Person.

2. Vessel is to have a draft assessment that includes the maximum height and draft of the vessel.

3. In accordance with USCG Regulations, a dead-ship towing proposal is to be submitted to MSO Hampton Roads at least 48 hours prior to the tow. Included in this submittal is to be a tank plan, with attached soundings/quantities, forward and aft drafts, air draft, length of vessel, official number of vessel, names and horsepower of assist tugboats, and 24 hour contact number for responsible party.

Tow of the *Kittiwake* to DMG shall be in accordance with the tow plan submitted to MSO Hampton Roads.

DMG contracted to have the survey completed for CITA for the initial inland tow from the James River Reserve Fleet to the DMG shipyard. Captain Don "Chip" Kinsey, Coastal Marine Surveys, Captain Andrew Kinsey, Coastal Marine Surveys, Captain Steve Thorton, American Marine

Towing and Captain Timothy Mullane, Dominion Marine Group performed the initial survey on February 28, 2008. The Trip and Tow Survey, Oil Response Plan and Proposal are attached as ***Appendix D.***

5.2 Mooring and Ship Security

Once the ship arrives at the shipyard, the Marine Surveyor is to survey and make any recommendations to ensure that vessel is properly moored and safe for heavy weather, and is to make a full report to Shipyard Program Manager and Insurance Underwriters.

Immediately after a ship is moored at the DMG facility, the ship is declared off limits to all unauthorized personnel and visitors. This is done as a health and safety precaution and for ship security. The following procedure is also fully detailed in the DMG Health and Safety Plan (HASP) contained in section 6 of this Reef Preparation Plan/Technical Compliance Plan (TCP).

5.2.1 Restricted Entrance

As detailed in the HASP, a gated gangway that is locked and/or guarded is installed as the egress and exit from the ship. The gated facility entrance and the gangway gate shall be posted with the following sign:

REGULATED WORK AREA

AUTHORIZED PERSONNEL ONLY

APPROVED PERSONAL PROTECTIVE EQUIPMENT REQUIRED

5.2.1 Authorized Entry

No one is allowed entry beyond the gangway gate unless under the direct supervision of an authorized DMG or subcontractor Site Supervisor. This includes all working personnel, all other DMG personnel and all visitors.

5.2.3 Visitors

All visitors must be specifically approved and authorized by the Program Manager and a numbered badge issued before being allowed on board. A Site Supervisor must personally escort the visitor at all times the visitor is on board.

5.3 Initial Vessel Survey and Preparation for Work

5.3.1 On-Board Hazards Assessment

The ship must be assessed to determine all attributes of potential on-board hazards. A hazards assessment will be completed once the vessel is moored and ship security is in place. A hazards' assessment team will meet, review the project goals and objectives, and then complete the hazards assessment. The hazards assessment team shall consist of the DMG Program Manager, DMG Vessel Superintendent, DMG EHS Supervisor, Certified Marine Chemist and the designated supervisors from all of the primary vessel abatement subcontractors.

The vessel is to be assessed for safety hazards, the security of all shipboard ladders and handrails/lifelines, the presence of any damaged, exposed, or friable PACM, any leaking containers or piping, and any other potential hazards during the hazards assessment. The hazards assessment phase is also the time when DMG and their subcontractors are to familiarize themselves with the vessel in an intimate manner, so as to be able to then review and update the TCP schedule.

Following the hazards assessment phase, a meeting will be held to discuss the overall and specific safety requirements and corrective action that must be taken prior to the start of any work phase on the vessel. It is during this meeting that discussions are to be held between DMG and all subcontractors regarding the refining of work plans and project coordination among the ship remediation team.

5.3.2 Sampling & Analysis of Hazardous Materials

DMG uses the services of Envirocon Inc, VA licensed and certified lead and asbestos inspectors and hazardous waste/materials abatement professionals to conduct all required sampling and abatement. As required, Envirocon will forward any post-abatement confirmation samples to certified environmental laboratories for analysis of hazardous waste/materials. Details regarding specific sampling and analytical methods are described in detail in the SOPs to be used for this project in ***Appendix E***.

DMG's environmental subcontractor Envirocon has reviewed the historical environmental survey information on the *Ex-Kittiwake* from the JRRF contained in ***Appendix C***, in addition to a detailed inspection of the vessel. While the historical data is not being relied upon as 100% accurate, it allowed Envirocon to estimate quantities of Hazmat to be removed. Envirocon shall finalize remediation plans for the removal and disposal of hazardous materials and wastes during the onboard hazards assessment. The plan will include the proposed location and construction of decontamination facilities and placement of temporary hazardous materials/waste storage areas.

5.4 Approval of Subcontractor Work Plans

Hazardous material/waste abatement and removal work plans by DMG subcontractors shall be approved by the DMG Program Manager before any work is initiated. In general all work plans will conform to the following.

1. DMG maintains a policy that DMG employees are forbidden to enter or engage in

environmental abatement work including the entry of containment areas.

2. Smaller ships will normally have one environmental crew assigned, starting at the bow working aft, and starting at the top working down.

The finalized work plans shall include the posting of signs, securing and repair of lifelines and handrails, and the repair or removal of any unsafe ladders or other hazards. The environmental team will establish containment areas and to abate any biological hazards (guano) that may be present. The team will also ensure that work areas are clean, make repairs, and install temporary lighting, firefighting equipment, and any other measure to make the workplace as safe as possible.

It shall be the responsibility of the vessel superintendent to ensure that the vessel is kept safe every day, and to perform a daily inspection with the team supervisors onboard said vessel. The subcontractor environmental supervisors shall be held responsible for ensuring the safety in any containment areas.

5.5 Finalization of Ship Remediation Schedule

After the ship has been safely delivered to DMG, properly moored, safe ingress and egress has been secured, the hazards analysis has been completed, and finalized work plans reviewed, the ship remediation schedule will be reviewed by the project team and approved by the DMG Program Manager. A final schedule will be developed and forwarded to the CITA Project Manager.

5.6 Signage and Barricades

In accordance with the DMG HASP, OSHA approved general accident prevention signs, tags, and notices will be used and made visible at all times when work is being performed, and removed promptly when the hazard no longer exists. All employees and subcontractors will obey all safety signs and tags.

Barricades, handrails, lifelines should be at least 42 inches high, and should provide a physical barrier. Caution tape is never an acceptable barricade method, as it only provides a visual barrier and is considered more of a visual warning method and not an acceptable barricade.

Confined spaces and tanks must have a "Safe For Entry" Certificate posted at the entrance before any work is started. This certificate can only be posted and maintained by a certified Marine Chemist or a Shipyard Competent Person and only if conditions allow. All requirements of the certificate must be followed and only personnel properly trained and qualified shall be permitted to enter these areas. Should any change in conditions occur, the Vessel Superintendent or Safety Supervisor must immediately be notified and access to the space must be prevented until the certified Marine Chemist or Shipyard Competent Person verifies that the conditions are safe for human entry.

All holes or openings through decks or bulkheads less than 3 feet above deck level must be properly identified and barricaded immediately. Material and equipment must never be stored on a hole cover.

5.7 Safety Equipment

After the above On Board Hazards Survey, all unsafe barricades, railings, ladders and/or flooring, etc will be repaired or removed as necessary. All necessary fire protection equipment, lifelines and buoys, spill containment equipment will be put in place.

5.8 Construction of Negative Air Pressure HM/HW Work Areas

Sections of the vessel containing HM/HW will be sealed and a mechanical HEPA filtered exhaust system, directed away form workers, installed in such a manner that a negative air pressure can be maintained for the work area and meet the appropriate OSHA air changes per hour requirement and as re-affirmed in the DMG HASP.

5.9 Installation of Portable Decontamination/Shower/Clean Room

Portable unit(s) will be installed adjacent to work area(s) involving HM/HW remediation work to comply with the OSHA requirements pertaining to safety and sanitary issues of personnel entering and leaving areas containing HM/HW. The air exhausts and water outlets of these units will. be appropriately filtered.

5.10 Monitoring Environmental Compliance

Environmental Compliance in the DMG workplace is the cooperative responsibility of all DMG personnel from the hourly worker to the company executives.

On a day-to-day basis, the Site Supervisors are required to conduct the work efforts of their crews in such a manner that all work is in compliance with environmental regulations.

The DMG subcontractor URS is charged with Safety Oversight and Environmental Compliance responsibility shall monitor compliance and is responsible for communicating the necessary environmental compliance issues to all DMG and subcontractor personnel and to help correct any infractions.

5.11 Monitoring Employee Health and Safety

Employee Safety and Health are the responsibility of all DMG personnel. All DMG employees are formally trained in the DMG rules and regulations regarding safe work practices and conditions. All DMG employees are expected to obey all DMG EHS rules. The DMG EHS Manager is responsible for communicating the necessary personnel safety and health protective

issues to all DMG and subcontractor personnel and to help correct any infractions.

5.12 HM/HW Abatement and Removal

Hazardous waste must be stored, transported, and disposed of in accordance with federal Resource Conservation and Recovery Act (RCRA) and Virginia State laws. The DMG facility is a registered small quantity generator (SQG) with EPA ID No. VAR000509281 and will adhere to all applicable requirements described in the RCRA regulations (refer to 40 CFR Part 262). The DMG policy meets or exceeds all hazardous waste handling and disposal requirements under the RCRA-SQG regulations. Additional information on regulatory compliance requirements and hazardous materials/hazardous waste management for this project is provided in Section 7.

DMG maintains a policy of limiting the storage and handling of waste materials. To accomplish this policy, roll-on/roll-off containers will be placed on or in the vessel. The containers will be OSHA/EPA appropriate for the material to be handled, and will be marked with the material to be placed inside, and the vessel name and/or ID number for tracking purposes.

When the container is full or ready to be removed, it will be removed from the vessel by crane and immediately transported for processing/disposal by our EPA approved waste disposal subcontractor.

5.13 Tank Cleaning and Ship Stability

When the removal crew has completed and cleared the forward area of the vessel, the tank cleaning crew can then begin the cleaning and gas freeing of all tanks, starting from the bow and working aft.

The tank cleaning and gas free operations are contained in section 19 of the DMG HASP. The following is to further clarify, and ad to the procedures to be taken for the reef preparation of the Ex-USS *Kittiwake*. The tank cleaning procedures are as follows:

- Pump any free standing liquids, using the appropriate hoses and equipment for the handling of oil. Free standing liquids are to be pumped shoreside into the slop frac tank, for further recycling and reclamation.
- Sludge in the tank bottoms will be hand mucked as necessary, and placed in a sealable ring top drum, to be removed from the ship and recycled.
- Using a high pressure hose and nozzle, the tank will be washed, from the top down. A suction hose is to be used during washing procedures to prevent any accumulation in the tank bottom, with the wash water being pumped to the shoreside frac tank for recycling and reclamation.
- Cleaning procedures are to be repeated until the tank is clean of any hydrocarbons and residues.
- After tank has been cleaned, the tank bottom is to be ragged out as necessary, to be left in a clean and dry condition.
- Tank is to be mechanically ventilated to remove any smell of hydrocarbons.

The DMG Program Manager is to monitor the stability of the vessel at all times and to call in the

necessary stability engineers to calculate any needed changes to the trim or draft of the vessel and any ballasting/deballasting that may be necessary to keep the vessel on an even keel.

All fluids and contents of the vessels tanks are to be handled as contaminated material and transported to an appropriate processing facility for disposal/recycling.

All rainwater and other bilge contents onboard the vessel is to be collected and transported to an appropriate processing facility for disposal/recycling.

DMG prohibits the discharge of any product, material, or fluid into the river system. Any discharge, accidental or intentional, will be reported to the proper regulatory agencies and rapid measures must be taken to contain any spilled material.

DMG policy is that prior to any oil or wastewater transfers of any type, the slip is to be boomed off. During the containment boom deployment, special attention is to be given to ensure the boom is not twisted and the boom should have 25 pound anchors placed in places in the length of it to ensure that it is kept free from snagging on the vessel. The boom should be secured to the bulkheads in a method that eliminates gaps where potential spills could escape.

Hot work should normally be stopped on any vessel undergoing tank cleaning/oil transfer.

5.14 Diver Safety Preparation Operations

Note: USCG must be informed prior to the daily initiation of hot work. The initials of the USCG representative shall be entered into the DMG daily work logbook. The USCG representative is reached by phone at 1-757-484-8192.

As required by the CITA diver safety preparation plan, booms, cranes, or other topside superstructures items may be removed starting from the bow and working aft. This work is to be accomplished after the area has been cleared by the environmental team but prior to the tank cleaning team moving in.

Special procedures need to be followed prior to the cutting or burning of any hollow structures due to the prevalence of hydrogen gas. A Certified Marine Chemist must inspect and specify the procedure to be followed prior to the issuance of any "hot work" certificate for hollow structures.

During removal or moving booms, masts, or other superstructure items it is important to secure and barricade the area around this work and to ensure that no other team members enter the area. The purpose of this work is to reduce the top weight of the vessel to eventually allow for the complete tank cleaning and de-ballasting of the vessel. The DMG Program Manager is responsible to ensure that a crane of sufficient size is dedicated to the completion of this operation.

The DMG Shipyard Supervisor is to ensure that proper safety is observed at all times, and is to direct the installation of fire lines prior to the commencement of hot work. In addition to fire lines, there is to be adequate fire extinguishers placed onboard, which will be placed when the

vessel first arrives at DMG.

The Superintendent is responsible for ensuring that all extinguishers are charged, and should test the fire hoses for sufficiency every morning prior to the start of work and after the lunch break. The morning test should be performed in the presence of the DMG Shipyard Supervisor and so logged in the daily Competent Person logbook. The logbooks and records are to be maintained for a minimum of 3 months.

No slag, paint, dirt, dust or other potential pollutants are allowed to enter the waterway. Barges and work floats with catch aprons (fireproof hot-work blankets) shall be placed in any areas where the potential for these materials to fall to the waterway exist. All barges, work floats, and spill plates must be regularly cleaned, with the sweepings collected and loaded into the paint/shipboard sweepings container for the vessel.

Section 6 – Health and Safety Program

6.1 DMG Health, Safety and Environmental Policy

DMG is committed to business practices, operations, and projects that protect people and the environment. DMG understands that ship repair and dismantling can be a dangerous endeavor. The basis for our health, safety, and environmental programs is that accidents causing injuries or illness to personnel or impact on the environment are preventable. It is everyone's obligation to prevent accidents, and all personnel are expected to conduct business in a manner that actively integrates the elements of the DMG Health and Safety Program into applicable aspects of DMG shipyard operations.

The goal of the DMG Health and Safety Program is zero accidents; therefore, accident prevention continues to be of paramount importance to the company. To this end, safety takes precedence over expediency.

DMG is committed to compliance with all federal, state and local health, safety, and environmental requirements.

DMG has established procedures that provide direction on health and safety matters to all employees. These procedures are periodically evaluated in light of current case law, new regulations, and emerging industry practices.

Both management and employees have the responsibility through personal example to create a climate in which everyone shares a concern for their own safety and the safety of their fellow workers.

6.2 Health and Safety Plan Report Organization

This HASP includes those elements typically requested by the MARAD in its requirements for a Technical Compliance Plan. The HASP is presented in sections 1 through 24 as contained in ***Appendix E*** of this reefing plan.

Section 7 – Regulatory Compliance

Federal, State and local protocols and regulations control the work environment of DMG. As applicable, they are incorporated into this ship remediation plan and the DMG Shipyard HASP, ***Appendix E***. DMG shall ensure all hazardous materials/waste removal and disposal operations shall be completed in compliance with all applicable federal, state and local statutes, U.S. statutory and regulatory requirements including the Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), the Occupational Safety and Health Act (OSHA), as well as international laws, treaties and conventions and agreements, as applicable.

DMG has completed its facility response plans and our VPDES permit is included in the certifications ***Appendix B***. DMG will ensure strict compliance with all aspects of our plans and permits, and compliance with all applicable regulations during ship remediation. DMG shall make available for inspection or provide copies to the various government agencies upon request all facility licenses and permits. DMG will only use subcontractors, transporters and treatment, storage and disposal facilities holding valid permits.

7.1 Written Environmental Compliance Operating Procedures

DMG has developed standard operating procedures (SOPs) for its written environmental, health and safety compliance requirements. These facilitate effective, uniform employee training and safety while working at our DMG Shipyard. Our SOPs include:

- Process Control Procedures for Asbestos
- Process Control Procedures for Lead (Pb)
- Includes Lead Hazard Control Plan
- Process Control Procedures for PCB's
- Hazard Communications Program
- Includes Contractor and Visitor Orientation Forms
- HAZWOPER Training
- Fire Prevention and Fighting
- Includes Fire Prevention Checklist
- Personal Protective Equipment (PPE)
- Confined Spaces
- Emergency Procedures

- Housekeeping
- Walking/Working Surfaces
- Hot Work Procedures
- Water Safety
- Personal Fall Arrest Systems
- Crane and Rigging Safety
- Hearing Conservation Program
- Machine Guarding
- Equipment Operators
- Process Control Procedure for Handling Fuels, Oils, and Lubricants
- Includes facility SPCC Plan
- Process Control Procedures for Chromated Water
- Process Control Procedures for the Disposal of Mercury
- Process Control Procedures for Ozone Depleting Substances
- Process Control Procedures for the Disposal of Non-Point Source Wastewater
- Includes American Marine Stormwater Management Plan
- Waste Management

These SOPs can be found in the DMG HASP.

7.2 Environmental Compliance Record Keeping

There are minimum record keeping compliance requirements with the various applicable regulations for our facility in general and for ship remediation operations. DMG keeps on file all the required records and plans for safe and effective operations and to maintain regulatory compliance and reporting. For the current project, these shall include:

- VPDES permit,
- Storm Water Pollution Prevention (SWPP) Plan,
- Health and Safety Plan (HASP),
- Copies of project solid and hazardous waste manifests,
- Written Hazard Communication Plan,
- Training records including Hazardous Waste Operations, OSHA, Confined Space, Competent Shipyard Person, DOT dangerous goods, and Health and Safety,
- Hazmat Inventory,
- MSDS Sheets,
- OSHA 300 logs,

- Fire equipment inspection records,
- Compressed gas cylinder inspection records,
- Written equipment operating procedures,
- Equipment maintenance records,
- Shipyard throughput calculations and emissions data for the last five years, and
- Shipyard throughput bilge water calculations for the last five years.

Per applicable regulations, upon request DMG shall make available for inspection to the various agencies the above records, reports and plans.

7.3 Procedures for Mitigating Pollution

DMG will maintain a spill response plan as part of the storm water pollution prevention plan. DMG will comply with all aspects of its VPDES Permit. Additionally, DMG has developed contingency plans for mitigating pollution spills that are presented in the HASP **– *Appendix E*.**

7.4 Employee Training and Certifications

DMG personnel training and certifications are current and valid for shipyard managers, superintendents, and foremen. Additionally, DMG's subcontractors selected for these projects also have all appropriate training and certifications. Copies of resumes and certifications are provided in ***Appendix A and B***, respectively.

7.5 Hazardous Material/Waste Company Policy

DMG's policy regarding hazardous material and hazardous waste is that DMG does not allow its employees to perform work involving any material or waste product that OSHA or EPA considers hazardous to the safety and health of employees or the environment.

DMG does not store any hazardous materials or wastes on its premises with the single exception of materials and waste generated during ship remediation activities. DOT approved shipping containers shall be used during the project and designated as temporary waste accumulation areas. The containers are necessary to contain hazardous material or waste while the remedial work performed by DMG subcontractors is underway. These containers will typically ship within 30 days. However, based on applicable RCRA SQG regulations and the anticipated disposition of the wastes, DMG subcontractors have up to 90 days to cycle out the containers using pre-approved licensed transporters.

DMG has selected several waste transporters and disposal facilities for this project (see Section 3). As part of working on this project, these subcontractors shall adhere to the requirements of this plan, their own environmental compliance plans, and all applicable federal, state and local environmental regulations.

7.6 Hazardous Material/Waste Control Procedures

Hazardous materials/waste control procedures and environmental compliance protocol for handling, removal, containment, transportation, and disposal are described herein, in DMG's HASP, and in subcontractor work plans and operational procedures. These are carefully reviewed for acceptability by DMG management. These plans and procedures shall be in accordance with the following regulations, procedures and protocols.

Federal

29 CFR 1910	Occupational Safety and Health Standards including
29 CFR 1910.15	Shipyard Employment
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1915	Occupational, Safety and Health Standards for Shipyard Employment
29 CFR 1915	Subpart Z Toxic and Hazardous Substances
40 CFR 131	Water Quality Standards
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 273	Standards for Universal Waste Management
40 CFR 279	Standards for the Management of Used Oil
40 CFR 761	Polychlorinated Biphenols (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions
40 CFR 763	Asbestos
49 CFR 171	Hazardous Materials Transportation
49 CFR 172	Hazardous Materials, Tables, and Hazardous Materials Communications

Commonwealth of Virginia

9 VAC 20-60	Hazardous Waste Regulations
9 VAC 20-80	Solid Waste Management Regulations
9 VAC 25	Water Quality Protection Regulations